Application/Control No.: <u>09/677,493</u>

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Applicant: George Guang Yang (Previous used name: Guang Yang)

392 Hans Way San Jose, CA 95133 Tel: (408) 729-1282 E-mail: guangyang14@hotmail.com

January 11, 2008

The Board of Patent Appeals and Interferences Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Dear Board Members,

I am filing this "Brief of Appeal" under 37 CFR 41.37© to appeal your final rejection of my Claims 1-7 mailed to me on November 28, 2007 by the examiner, Mr. **Baoquoc N. To**. Attached is the \$255.00 check for filing brief fee under 37 CFR 41.20(b)(2).

Brief of Appeal

Real Party in Interest:

George Guang Yang, Ph.D., Independent Inventor/Appellant.

Related Appeals and Interferences:

There is no prior pending appeals, interferences or judicial proceedings known to appellant.

Status of Claims:

My patent application Claims 1-7 were finally rejected by your "Office Action Summary" and "Detailed Action" dated November 23, 2007 and mailed to me on November 28, 2007 by Examiner, Mr. Baoquoc N. To.

Status of Amendments:

There is no amendment after the final rejection.

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Argument:

The following arguments relate to each items of the "Detailed Action" signed by the examiner, Mr. Baoquoc N. To on November 23, 2007 and mailed to me on November 28, 2007, which is the examiner's response to my reply letters filed on your office on September 13, 2007, June 19, 2007 and earlier dates.

"Response to Arguments"

#2. My Claims 1-7 use the antecedents correctly and the examiner, Mr. Baoquoc N. To, erred in his arguments.

In my Claim 1, I define and claim "an integrated relational database data editing system", and the "said database data contents" (line 4) and "database data" (line 6) clearly refer to the server "relational database" (line 3), "the data" (line 7) and "the large text data type and the large binary data type" (lines 12-13) precisely refer to "the database data" (line 6) which is the relational database data. The "large text data type" and "large binary data type" are relational database terms which are used for relational database only. The examiner should not image or assume that these relational database terms might not refer to the relational database data.

In Claim 2, the "said database data on each table cell" (line 4) and "said database small text data on each table cell" (line 5) clearly refer to "a database table or a subset data of a table" (lines 2-3). The "said commercial editor" (line 9), "the data editor" (line 11) and "said data editor" (line 13) clearly refer to the "graphic user interfaces and tools" (line 2) and "commercial text and multimedia data editors" (Claim 1, lines 13-14). The "database data" (line 10) refers to "a relational database" (Claim 1, line 3) data which is linked and downloaded by double-clicking "the small icon of a table cell" (line 10). The "edited data" (line 11) refers to "the database data" (line 10); "the original database" (line 12) refers to "a relational database" (Claim 1, line 3); "the edited data" (line 11) refers to "the database data" (line 10). I use these antecedents correctly in verbal and contextual aspects. The examiner should not assume or image that the relationships or references are not correct without any factual merits.

In Claim 4, "a Detail Panel" (line 3) clearly refers to "a Detail Panel" (Claim 3, lines 2-3), and "the database name (line 3) and "the table name" (line 4) refer to "a list of

database and database tables" (line 2). The examiner should not assume or image that the relationships here are not correct without providing any factual merits.

In Claim 5, "the database" (line 2) and "the remote server database" (lines 9-10) clearly refer to "a relational database" (Claim 1, line 3); and "the entity relationships of the database tables" (lines 3-4), "the database tables" (line 5) and "the database data structure" (line 6) precisely refer to the features and properties of the "database" (line 2) and "a list of databases and database tables for each database" (Claim 4, line 2). The examiner should not assume or image that these features and properties are not referred to those of "the database" (line 2).

"Claims 1, 4 and 6"

My invention concludes Claims 1-7 "...particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention." (35 USC § 112, second paragraph). My invention Claims 1-7 are original and useful, and are patentable under 35 USC § 101.

My present invention is related to an integrated database data editing system for editing and managing the relational database data contents remotely through intranet or Internet in an efficient and easy-to-use manner. The editing system contains the client computer visual graphic user interfaces and tools to input, output, modify, update and manage the database data, which is extremely useful for editing the large database objects such as the large text objects and binary objects. The TCP/IP (Transfer Control Protocol/Internet Protocol) based connection-oriented network protocols are used to communicate between the client and server computers, which guarantees the data transmission consistency and security. The client/server version of the system is implemented by using Java technologies and deployed on intranet. The web version is implemented by using web and Java technologies and deployed on Internet and also on any other network systems. The web version has more advantage to implement the security features by using the PKI (Public Key Infrastructure), SSL (Secure Socket Layer) and firewall. The mechanisms for user authentication and access control to the database data editing system are well designed and implemented. All these functions and mechanisms are new and useful, and have not been disclosed in any previous arts.

Gill et al. (U.S. Patent No. 6,005,560) teach a multi-media presentation system for coordinating staff access to multi-media presentation data and related information, which is useful in printing and publishing industry to manage and coordinate the efforts required by the publication staff to produce the desired publishing documents. The related information is stored in an item header file, as well as in a number of separated records. Gill et al. do not teach anything related to a relational database nor teach anything related to data editors (except using commercial text, picture, movie and sound editors) similar to the integrated database data editing system taught in my present invention Claims 1-7.

Gill et al. teach that (col. 4, lines 64-67) "Text editing unit 52 is used to create and modify the text of a multi-media object and includes a multi-media object retrieval unit 56, a user interface 60 and a text editor 64." Gill's system does not use relational database and the file server does not contain a relational database. Gill et al. only use the commercial editors, which are totally different from my integrated database data editing system, wherein the mechanisms and functions of the client computer user interfaces and editors are well defined, and the client computer user interfaces directly retrieve and edit the relational database data from the remote computer server database.

Gill does not teach anything related to a relational database here and nowhere else in his invention. A relational database is a software product which stores text or binary data in a table with columns and rows, such as Oracle database, IBM DB2 database and Microsoft SQL Server database. A relational database communicates with other software components by DataBase Management System (DBMS) through Open DataBase Connection (ODBC) or Java DataBase Connection (JDBC) and by using Structured Query Language (SQL). The examiner cannot assume or image that Gill's "...a number of different data bases for storing multi-media object and information..." (col. 2, lines 47-48) teaches relational databases. Gill et al. only teach the files and records in their invention.

Allport (US Patent No. 6,104,334) teaches a remote control that uses IR (infrared) commands to control various consumer appliances made by various manufacturers. The remote control is low-cost, consumer-friendly, programmable, has its own graphical display so it does not interfere with a TV or other viewing screen, and is

capable of interacting with the internet or other data source to provide a rich set of functionality. All port does not teach anything related to the integrated database data editing system as my invention.

Allport teaches that (col. 7, lines 60-66) "Preferably, a relational database of entries is maintained, each entry describing multiple features of a particular title or program, such as the time of day of its showing, ..." and (col. 24, lines 28-31) "Editing an object causes a pop-up menu to appear with the available options to edit. Options include the name, the image, the function (label, navigation, sending, IR commands, edit, etc.), a copy and a paste option, and save and exist options." Here, Allport discloses to use a relational database to store some parameter entries in his remote control, and to use a pop-up menu to provide options for selecting an object. Allport does not invent a relational database nor a pop-up menu but just uses them to implement his remote controller. Allport does not teach anything similar to my invention of the integrated database data editing system.

Gill et al. use the text and multi-media commercial editors in the client computer to edit the combined data objects but do not use the relational databases. All port uses a relational database in the IR controller to store some parameters. None of them teaches anything similar to my integrated database data editing system as disclosed in my invention.

Gill et al. teach that (col. 5, lines 12-25) "The multi-media object retrieval unit 56 is also connected to plurality of editing components which are illustrated as the text editor 64A, picture editor 64B, movie editor 64C, sound editor 64D to optionally edit the multi-media object. The editors 64A-D are interactive editors that enables a designer/editor to modify an existing multi-media object retrieved from the file server 28. These elements can be commercially available editing tools which are installed on various ones of the processors which comprises the network..." and that (col. 10, lines 10-17) "...the checkin utility communicates with the multi-media object controller 324 to release the staff member's exclusive access to the checked-out multi-media object file 304, and subsequently provides the file server 28 with a new version of the multi-media object file 304 to be written to the storage device. As an alternative to checking-out a multi-media object file 304, the edit header utility 516 can be used to modify item file header 308

fields..." Gill et al. use the commercially available text editor 64A, picture editor 64B, movie editor 64C and sound editor 64D to retrieve and edit multi-media objects from the file server 28 and then send the edited data to the storage device. Gill et al. do not explicitly teach what the file server 28 is, where the file server is located, and how the multi-media objects are retrieved from the file server. Gill's file server contains no relational database and is not related to my integrated database data editing system as the present invention. Gill et al. do not teach anything related to my present invention which uses the client visual environment, tools and data editors to retrieve and edit the server relational database data contents.

Gill et al. fail to teach what the multi-media editors are and how the multi-media objects are edited, but only disclose that "These elements can be commercially available editing tools..." (col. 5, lines 18-22). Gill et al. teach that (col. 4, lines 64-67 and col. 5, lines 1-12) "Text editing unit 52 is used to create and modify the text of a multi-media object and includes a multi-media object retrieval unit 56, a user interface 60 and a text editor 64. The multi-media object retrieval unit 56 retrieves, and optional check-out for exclusive use, multi-media objects from the project coordinator 24. In addition, the multi-media object retrieval unit 56 issues requests to display each retrieved multi-media object, via a user interface 60, to the designer/editor. To accomplish this, multi-media object request information flows from the designer/editor to the user interface 60 and on to the multi-media object retrieval unit 56 for multi-media object retrieval from the project coordinator 24. Once the multi-media object is retrieved, display options are set and the multi-media object is presented to the user interface 60 to be displayed." Here, Gill et al. teach a multi-media object retrieval unit 56 which communicates with the project coordinator 24 and the user interface 60 and text editor 64 to retrieve, display and modify the multi-media object. A designer/editor uses the interactive editors 64A-D to modify an existing multi-media object retrieved from the file server 28 (col. 5, line 12-18). Gill's system does not use relational database and the file server 28 does not contain a relational database. Gill's user interface and commercial editors are totally different from my integrated database data editing system, wherein the mechanisms and functions of the client computer user interfaces and editors in my invention are well defined, and the client computer user interfaces directly retrieve and edit the relational database data

from the remote computer server database and then send the edited data back to the remote relational database.

Gill et al. (col. 4, line 66, col. 5, lines 1-18, fig. 1, 64A-D) use the commercial text editor, picture editor, movie editor and sound editor to retrieve and edit the multi-media objects from the project coordinator and file server (not relational database), which is not similar to my Claim 1(iii) wherein "said client computer directly edits and modifies the large text data type and large binary data type by using a plurality of commercial text and multimedia data editors installed on the client computer;". There are many commercial multimedia editors available on the market, and I can make my own multimedia editors as well. My invention is the first time to directly implement these commercial editors as elements of the editing tools to edit the large data types of the remote server relational database, which is similar to that the architects use bricks, steel and other materials to build a building.

Gill et al. teach that (col. 12, lines 57-67) "The sources of media objects S1-S6 are graphics downloaded from external sources, such as CD-ROM S1 or disk drive S2, graphics generated by additional software resident on the processor P or graphics that are scanned into the system via a peripheral device. Furthermore, video information likewise is obtained from a plurality of external sources including, but not limited to, data communication connections S4 to the file server 28 of the multi-media project management and control system 20 or to broadcast media, such as Internet or broadcast television, video tape recorders S3, or live feeds S5 from a camera or other such appropriate source of video information." Gill et al. only teach that the multi-media objects are "downloaded" or "obtained" from the external sources S1-S6 (not edited and sent back to S1-S6). Gill et al. do not teach anything related to my Claim 6 where the client and server computers are coupled in an intranet and the client/server version of the integrated database data editing system is deployed and run on the intranet.

Gill et al. fail to teach what computer networking software and protocols are used to communicate the file server. Gill et al. (fig 4, S4, col. 4, lines 40-51) teach that a cable links the computer processor P to network, and the client applications communicate with project coordinator, utility programs and data controller to control access to multi-media object files supplied by the file server (not relational database), which is different from

my Claim 1(iv) wherein "said database data editing system uses TCP/IP (Transfer Control Protocol/Internet Protocol) based connection-oriented network protocols to communicate between the client and server computers;".

Gill et al. (col. 8, lines 50-55) teach that the multi-media presentation access controller 320 controls access to the project coordinator 24 by using a staff member's logon name and password. Gill et al. do not invent this security mechanism of using logon name and password. It is one of the industrial standard concepts to secure the application access by using user's login id and password. I use the user id and password plus other security mechanisms the first time to implement my integrated database data editing system. Gill et al. do not teach anything related to secure the access to my integrated database editing system as described in my Claim 1(v) that "said database data editing system implements user authentication and access control mechanisms which assigns different user groups with different privileges."

Bowman-Amuah (US Patent No. 6,256,773 B1) teaches a system, method, and article of manufacture for affording consistency in a development architecture framework as components in the framework change. The information relating to the changes may include the user, area affected, priority, cost, authorization and time. The tools may be adapted for managing the different versions of the program code for different development stages and to facilitate packaging. Bowman-Amuah does not teach anything related to the integrated database data editing system as my present invention.

Bowman-Amuah teaches that (col. 53, lines 23-29 or paragraph 1031)

"Repository access can sometimes be controlled using an access control function, which comes with the repository. A common technique is to group users and assign different access rights to the different groups. Each of these groups is also assigned specific read/write/delete/modify authority. For example, the following groups may be defined as having increasing rights:". Bowman-Amuah does not invent the mechanism to assign different user group the different access rights. It is one of the industrial standard concepts to assign different access rights to different user groups. I use this mechanism the first time to implement my integrated database data editing system in the present invention. Bowman-Amuah does not teach anything related to my Claim 1(v) that "said

database data editing system implements the user authentication and access control mechanisms which assign different user group with different privileges."

Gill et al. use the login name and password security mechanism to implement their system and Bowman-Amuah uses the mechanism of assigning different users with different access rights security mechanism to implement his system. None of them invents these security mechanisms. I use these security concepts of industrial standards to implement my integrated database data editing system in the different ways as those of Gill et al. and Bowman-Amuah.

Allport discloses (col. 7, lines 60-66) "a relational database of entries is maintained, each entry describing multiple features of a particular title or program, such as the time of day of its showing, ..." and (col. 24, lines 28-31) "editing an object causes a pop-up menu to appear with the available options to edit. Options include the name, the image, the function (label, navigation, sending, IR commands, edit, etc.), a copy and a paste option, and save and exist options." Allport uses a relational database to store some parameter entries inside his remote controller and uses a pop up menu to display and edit options of the parameters, which is different from my present invention.

Allport also discloses that (col. 27, lines 45-47) "The other ports (635, 645, 650 and 655) are optional, but at least one is required in order for the remote control 10 to connect to an outside data source such as the internet." Here, Allport teaches the remote control hardware design which is different from my integrated database data editing system in the present invention.

Allport's remote control does not relate to Gill's multi-media project management and control system for printing, nor relate to Bowman-Amuah's system for program code version control, and none of their systems is similar to my integrated database data editing system in the present invention.

Gill et al. (col. 16, lines 48-49) use a pop-up menu, window and line to implement multi-media objects, which are different from my Claim 4(i) wherein a Detail Panel is popped-up by double-clicking the database name on the Head Panel. Gill et al. (col. 15, lines 5-8) use a "hot text" to perform a desired action by placing the cursor or clicking the mouse on it, which is different from my Claim 4(ii) wherein a database table is popped-up by mouse double-clicking the table name. The pop-up menu, window form, "hot

text", cursor and mouse-clicking, etc. are standard computer user interface functions, which are used by the users to implement their software applications. Gill et al. do not invent these computer user interface functions, but use them to implement their desktop publishing system. I first time use these industrial standards of Windows frame layout (header panel and detail panel) and mouse action (double-click) to implement the user interfaces of my integrated database data editing system in the present invention.

As I argued above, Gill et al. teach that (col. 10, lines 10-15) "...the check-in utility communicates with the multi-media object controller 324 to release the staff member's exclusive access to the checked-out multi-media object file 304, and subsequently provides the file server 28 with a new version of the multi-media object file 304 to be written to the storage device." Gill et al. only teach that the multi-media objects are "downloaded" or "obtained" from the external sources S1-S6 (fig. 4) where S4 is a cable connected to the network. Gill et al. do not teach anything related to a relational database, nor anything related to my Claim 6 where the client/server version of the integrated database data editing system is deployed and run on the intranet.

Claim 3

Koppolu et al. (US Patent No. 5,801,701) teach a computer method and system for interacting with a containee object contained within a container object, more specifically, an Object Linking and Embedding (OLE) method and system in Microsoft Windows environment, such as a compound document with a Spreadsheet object embedded in a Word application.

Koppolu et al. do not teach anything related to my invention of the integrated database data editing system. Koppolu et al. (fig. 32 and col. 60, lines 26-36) teach an example application that uses a Windows form architecture as the basis for its user interface, including a menu bar (3203) and application workspace areas (3204 & 3205) with lists (3206 & 3207), which is different from my Claim 3 wherein the Database Data Manager contains a Head Panel and a Detail Panel. When a user clicks the database name or the table name listed on the Head Panel, the corresponding Detail Panel is popped up and the detailed function or data is displayed.

Koppolu et al. do not invent the Windows form, but just use the form functions to implement their software applications. I use these form functions of industrial standards the first time to implement my integrated database data editing system in the ways totally different from those of Koppolu et al.

Claim 2

Koppolu et al. disclose that (fig. 4, col. 8, lines 25-28) "FIG. 4 is a diagram of the embedded spreadsheet object as it appears when activated in place within the compound document. The spreadsheet object 405 is edited directly in the client window 404 of the word processing application." Koppolu et al. directly edit the spreadsheet object in the word processing application inside the client window, which is totally different from my Claim (2)(i)-(iii) where the graphic user interface and tools are used to display and edit the relational database data retrieved from the remote server database.

Claim 5

Moursund (US Patent No. 5,644,739) teaches a system and method for intuitively adding a button or other type of control to a tool bar or other region of a Windows form for holding the same. A control is added by dragging an object to a region for holding controls and dropping the object at the desired location of the control in the region. Moursund's system is totally different from my invention of the integrated database data editing system.

Moursund (fig. 4A-4G and col. 5, lines 39-45) teaches that "Briefly described, the 'MICROSOFT ACCESS' application program is an interactive relational database for the 'WINDOWS' operating system. The object 26 may be of several different types, including tables, queries, forms, reports, macros, or modules. The 'MICROSOFT ACCESS' application program includes a button creation routine 32 for customizing the toolbar 28 in accordance with the present invention." Moursund does not invent Microsoft Access database, but only teaches a button creation process for customizing the toolbar of the Microsoft Access GUIs (Graphic User Interfaces) with some functions of the Access database, which is totally different from my Claim 5 where the Detail Panel contains the tools and functions to design or edit the remote server database contents.

Microsoft Access is a very simple PC relational database with very limited functions and only supports small data types but not the large text and binary data types. The Access GUIs cannot be separated from the database and both GUIs and database can only run in the same Windows operation system. The Detail Panel of the Database Data Manager in my Claim 5 is installed in the client computer which is separated from the remote server computer database by the networks, and is used to remotely access, edit and manage the server relational database through either intranet or Internet by using TCP/IP based connection-oriented protocols. The technologies for a PC application, client/server application in intranet, and client/server application in Internet are totally different from each other. Furthermore, the Detail Panel in my Claim 5 contains totally different tools and functions from Moursund's form.

As I state above, Gill et al., Koppolu et al. and Moursund do not teach anything related to the intranet or Internet relational database data editing system as my present invention. The systems and methods of Gill, Koppolu and Moursund are not related each other also.

Claim 7

Gill et al. (col. 13, lines 58-67) teach a method to place the text objects and picture objects on a document page, which is totally different from my Claim 7 wherein the web version of integrated database data editing system is implemented with the Public Key Infrastructure (PKI) and Secure Socket Layer (SSL) and is deployed on Internet and also intranet.

Gill et al. teach a multi-media object presentation system for printing. Allport teaches a remote control for home electric appliances. Gill et al. and Allport do no teach a system deployed and run on the Internet and also intranet as my integrated database data editing system in the present invention.

Teper et al. (US Patent No. 5,815,665) teach an online brokering service providing user authentication and billing services to anonymously and securely purchase online services. Users and service provider sites initially register with the brokering service, and are provided with respective client and server software components for using

the brokering service. Teper et al. do not teach anything related to my present invention of the integrated database data editing system.

Teper et al. (col. 17, lines 23-33) teach a method to encrypt data by session key and also by Secure Sockets Layer (SSL) protocol. The Public Key Infrastructure (PKI) technology has been widely used as an industry standard since 1970's and the Secure Socket Layer (SSL) is also widely used as an industry standard for many Internet applications. So far, both PKI and SSL are the best technologies and standards for Internet and other network application security through standard network communication protocols. Teper et al. do not invent the data encryption or SSL mechanisms, but just use these industrial standards to implement their applications. In my present invention, I first time use the PKI and SSL security technologies to encrypt and secure the database data transmission between the client computer and the server computer through Internet and also intranet.

"Claim Objections"

#3. I use the antecedents precisely and correctly in my Claims 1-2 and 4-5 which cannot be objected by the examiner for informalities.

Claim 1: "said database data contents" (line 4) and "the database data" (line 6) refer to "a relational database" (line 3); "the data" (line 7) and "the large text data type and large binary data type" (lines 12-13) refer to "the database data" (line 6); "the original database" (line 8) refers to "the remote server computer database" (line 6-7). There is only a relational database here and all the data refers to the data of this relational database.

Claim 2: "said database data on each table cell" (line 4) and "said database small text data on each table cell" (line 5) refer to "a database table or a subset data of a table" (lines 2-3); "said commercial data editor" (line 9), "the data editor" (line 11) and "said data editor" (line 13) refer to "graphic user interfaces and tools" (line 2) and "commercial text and multimedia data editors" (Claim 1, lines 13-14); "the database data" (line 10) refers to "small icon of a table cell" (line 10) which links to and downloads the data from "a relational database" (Claim 1, line 3); "the edited data" (line 11) refers to "the database

data" (line 10); "the original database" (line 12) refers to "a relational database" (Claim 1, line 3).

Claim 4: "a Detail Panel" (line 3) refers to "a Detail Panel" (Claim 3, lines 2-3); and "the database name" (line 3) and "the table name" (line 4) refer to "a list of databases and database tables for each database" (line 2).

Claim 5: "the database" (line 2) and "the remote server database" (lines 9-10) refer to "a relational database" (Claim 1, line 3); and "the entity relationships of the database tables" (lines 3-4), "the database tables" (line 5) and "the database data structure" (line 6) refer to the properties of "the database" (line 2).

"Claim Rejections - 35 USC § 103"

#4. My Claims 1, 4 and 6 cannot be rejected by the examiner under 35 U.S.C. § 103(a) as being unpatentable over Gill et al (US. Patent No. 6,005,560) in view of Bowman-Anuah (US Patent No. 6,256,773 B1) and further in view of Allport (US. Patent No. 6,104,334). My Claims 1, 4 and 6 are original, useful and patentable under 35 U.S.C. § 101.

Gill et al. teach a multi-media presentation system for coordinating staff access to multi-media presentation data and related information, which is useful in printing and publishing industry to manage and coordinate the efforts required by the publication staff to produce the desired publishing documents. The related information is stored in an item header file, as well as in a number of separated records. Gill et al. do not teach anything related to relational database nor teach anything related to data editors (except using commercial text, picture, movie and sound editors).

Bowman-Amuah teaches a system, method, and article of manufacture for affording consistency in a development architecture framework as components in the framework change. The information relating to the changes may include the user, area affected, priority, cost, authorization and time. The tools may be adapted for managing the different versions of the program code for different development stages and to facilitating packaging. Bowman-Amuah does not teach anything related to relational database or data editors as my present invention.

Allport teaches a remote control that uses IR (infrared) commands to control various consumer appliances made by various manufacturers. The remote control is low-cost, consumer-friendly, programmable, has its own graphical display so it does not interfere with a TV or other viewing screen, and is capable of interacting with the internet or other data source to provide a rich set of functionality. Allport does not teach anything related to my integrated database data editing system of my present invention.

Regarding my Claim 1, Gill et al. do not teach anything related to relational database as my invention, wherein "an integrated relational database data editing system providing a visual environment, graphic user interfaces and tools in a client computer to remotely access a server computer that contains a relational database and to manage and edit said database data contents through either intranet or Internet, and said system includes the following mechanisms and characters:"

- (i) Gill et al. (col. 4, lines 43-51) teach that the utility programs communicate with the data controller to control access to multi-media object files supplied by a file server (not relational database) for staff member client applications or for being written to the storage device (col. 10, lines 13-15), which is totally different from my Claim 1(i) wherein "said client computer retrieves the database data from the remote server computer database, modifies, updates, input, output the data and then sends the data back to the original database;". Gill et al. fail to explicitly indicate what the file server is and where it is located (because the technologies are totally different for the PC application to the client/server applications in intranet or client/server applications in Internet).
- (ii) Gill et al. (col. 4, 66-67) use a user interface 60 and a text editor to create and modify the text of a multi-media object, which is different from my Claim 1(ii) wherein "said client computer directly edits and modifies the database data without writing detail computer language codes in an efficient and easy-to-use manner;". Gill et al. fail to teach what the user interface and text editor are, and how the data is edited.
- (iii) Gill et al. (col. 4, line 66, col. 5, lines 1-18, fig. 1, 64A-D) use the commercial text editor, picture editor, movie editor and sound editor to retrieve and edit the multi-media objects from the project coordinator and file server (not database), which is not similar to my Claim 1(iii) wherein "said client computer directly edits and modifies

the large text data type and large binary data type by using a plurality of commercial text and multimedia data editors installed on the client computer;". There are many commercial text and multimedia editors available on the market and I can make my own editors as well. My invention is the first time to directly implement these commercial editors as elements of the editing tools to edit the database large text and binary data types, which is just like that the architects use bricks, steel and other materials to build a building.

- (iv) Gill et al. (fig 4, S4, col. 4, lines 40-51) teach that a cable links the computer processor P to network, and the client applications communicate with project coordinator, utility programs and data controller to control access to multi-media object files supplied by the file server (not database), which is different from my Claim 1(iv) wherein "said database data editing system uses TCP/IP (Transfer Control Protocol/Internet Protocol) based connection-oriented network protocols to communicate between the client and server computers;".
- (v) My Claim 1(v) teaches "said database data editing system implements user authentication and access control mechanisms which assigns different user group with different privileges." My invention the first time uses these security concepts and mechanisms to implement the integrated database data editing system, which is different from the arts of Gill et al., Bowman-Anuah and Allport.

Gill et al. (col. 8, lines 49-62) teach that "The multi-media presentation access controller 320 controls access to the project coordinator 24 by establishing the validity of a staff member's logon name and password. In addition, the multi-media presentation access controller 320 also establish the authorization of a staff member to access the multi-media objects 304 related to a selected multi-media presentation. Once access to the project coordinator 24 is granted, access privileges are checked to determine which multi-media presentation, multi-media presentation section and multi-media object type a staff member can potentially access as long as the multi-media project management and control system 20 client application being used by the staff member can process the multi-media object file type." Gill et al. do not invent the security mechanism of using logon name and password. It is one of the industrial standard concepts to secure the application access by using user's login id and password. Gill et al. do not teach anything

related to secure the access to my integrated database editing system as described in my Claim 1(v).

Bowman-Amuah teaches that (col. 53, lines 23-29 or paragraph 1031) "Repository access can sometimes be controlled using an access control function, which comes with the repository. A common technique is to group users and assign different access rights to the different groups. Each of these groups is also assigned specific read/write/delete/modify authority. For example, the following groups may be defined as having increasing rights:". Bowman-Amuah does not invent the security technique to assign different user group the different access rights. It is a standard industrial concept to assign different access rights to different user groups. I use this security concept the first time to implement my integrated database data editing system in the present invention.

Gill et al. (col. 2, lines 46-50) teach that "The multi-media project management system and control system has a number of different data bases for storing multi-media object data and information..." which does not mean or suggest that the multi-media data is stored in a relational database. Gill et al. explicitly teach that the multi-media object data is stored in a file server, and there is nowhere in Gill's invention, Gill et al. suggest to use a relational database.

Allport suggests that (col. 7, lines 60-66) "Preferably, a relational database of entries is maintained, each entry describing multiple features of a particular title or program, such as the time of day of its showing, ..." and (col. 24, lines 28-31) "Editing an object causes a pop-up menu to appear with the available options to edit. Options include the name, the image, the function (label, navigation, sending, IR commands, edit, etc.), a copy and a paste option, and save and exist options." Here, Allport suggests to use a relational database to store some parameter entries in the remote control, and to use a pop-up menu to provide options for selecting an object, which is not similar to anything in my invention of the integrated database data editing system.

As I stated above, neither Gill et al., Bowman-Amuah nor Allport teaches any mechanism or function similar to my invention of the integrated database data editing system. There is no any relationship between the arts of Gill et al, Bowman-Amuah and Allport. Therefore, it is impossible to one ordinary skilled in the time of the invention

was made to modify Gill et al. and Bowman-Amuah systems to include editing the contents stored in the relational database of the remote control as suggested by Allport in order to allow organized data in the table to be edit convenience by the click of mouse as the examiner assumes.

Regarding my **Claim 4**, I teach that "The Header Panel of the Database Data Manager of Claim 3 contains a list of databases and database tables for each database, ...".

Koppolu et al. teach a computer method and system for interacting with a containee object contained within a container object, such as a compound document with a Spreadsheet object embedded in a Word application. Koppolu et al. (fig. 32, 3204, VAC1, VAC2, VAC3) teach an example application that uses a form architecture as the basis for its user interface, including a menu bar and application workspace area (3204) with three project icons (VAC1, VAC2, VAC3), which is different from the header panel of the database data manager in my Claim 4. I use the industrial standards of Windows frame layout (header panel and detail panel) and mouse action (double-click) to implement the user interfaces of the Database Data Manager.

- (i) Gill et al. (col. 16, lines 48-49) use the pop-up menu, window and line to implement the multi-media objects, which is different from my Claim 4(i) wherein "a Detail Panel is popped-up when double-clicked the database name;".
- (ii) Gill et al. (col. 15, lines 5-8) use a "hot text" that performs a desired action by placing the cursor and clicking the mouse on it, which is different from my Claim 4(ii) wherein "a database table is popped-up when double-clicked the table name."

Regarding my Claim 6, I teach that "A client/server version of the integrated database data editing system of claim 1 is implemented by using Java technologies and deployed to the intranet."

Gill et al. (col. 12, lines 57-67) teach that "The sources of media objects S1-S6 are graphics downloaded from external sources, such as CD-ROM S1 or disk drive S2, graphics generated by additional software resident on the processor P or graphics that are scanned into the system via a peripheral device. Furthermore, video information likewise

is obtained from a plurality of external sources including, but not limited to, data communication connections S4 to the file server 28 of the multi-media project management and control system 20 or to broadcast media, such as Internet or broadcast television, video tape recorders S3, or live feeds S5 from a camera or other such appropriate source of video information." Gill et al. only teach that the multi-media objects are "downloaded" or "obtained" from the external sources S1-S6. Gill et al. do not teach anything related to my Claim 6.

#5. My Claim 3 cannot be rejected under 35 U.S.C. § 103(a) by the examiner as being unpatentable over Gill et al (US. Patent No. 6,005,560) in view of Bowman-Anuah (US Patent No. 6,256,773 B1) and further in view of Allport (US. Patent No. 6,104,334) and further in view of Koppolu et al. (US Patent No. 5,801,701). My Claim 3 is original, useful and patentable under 35 U.S.C. § 101.

Regarding my Claim 3, I teach that "The database data editing system of claim 1 contains a Database Data Manager in the client computer comprising a Header Panel and a Detail Panel, which provides a user-friendly visual environment and tools to manage and edit the database data contents." Gill et al., Bowman-Anuah and Allport do not explicitly teach anything related to the database data manager in the client computer comprising a header panel and a detail panel as in my Claim 3.

Gill et al. (col. 3, lines 66-67 and col. 4. lines 1-3) teach that the Fig. 1 illustrates the major architectural components of the multi-media project management and control system 20 comprising a plurality of networked processors or workstations, which is totally different to my Claim 3 wherein I teach a database data manager comprising a header panel and a detail panel.

Koppolu et al. teach a computer method and system for interacting with a containee object contained within a container object, more specifically, an Object Linking and Embedding (OLE) method and system in Microsoft Windows environment, such as a Spreadsheet object embedded in a Word document application. Koppolu et al. do not explicitly teach anything related to the database data manager in the client computer comprising a header panel and a detail panel as in my claim 3.

Koppolu et al. (fig. 32) use an industrial standard Window form architecture for user interface, including a menu bar (3203) and application workspace areas (3204 & 3205), which is different from my Claim 3 wherein the Head Panel and the Detail Panel of the Database Data Manager are used to edit the remote database data contents and have the "parent-child" relationship. When a user clicks the database name or the table name listed on the Head Panel, the corresponding Detail Panel is popped up.

As I state above, it is not possible to one ordinary skilled in the art at the time of the invention was made to modify the Gill et al, Bowman-Amuah and Allport systems to include the Windows form user interface as used by Koppolu in order to provide layout structure to allow the user to visualize and select database data for editing as disclosed in my Claim 3 of the present invention.

#6. My Claim 5 cannot be rejected under 35 U.S.C. § 103(a) by the examiner as being unpatentable over Gill et al (US. Patent No. 6,005,560) in view of Bowman-Amuah (US Patent No. 6,256,773 B1) and further in view of Allport (US. Patent No. 6,104,334) and further in view of Koppolu et al. (US Patent No. 5,801,701) and further in view of Moursund (US Patent No. 5,644,739). My Claim 5 is original, useful and patentable under 35 U.S.C. § 101.

Regarding my Claim 5, I teach that the detail panel of the database data manager contains the functions and mechanisms as described in claim 5(i)-(vi). Gill et al. teach a multi-media presentation system for printing, Bowman-Amuah teaches a system for affording consistency in a development architecture framework and Allport teaches a remote control by IR (infrared) commands to control various consumer appliances, which are totally different from my Claim 5 wherein the Detail Panel of the Database Data Manager contains a plurality of tools, functions and mechanisms to remotely access, edit and manage the relational database.

Koppolu et al. (col. 7, lines 53-64) teach a method to edit the containee object, such as a spreadsheet program in a word processor, which is totally different from my Claim 5(i) where the Database Designer is used to creating and modify the remote database through either intranet or Internet.

Gill et al., Bowman-Amuah, Allport and Koppolu et al. do not explicitly teach anything related to my claim 5(ii)-(vi) wherein that "(ii) an Entity Relationship Designer for editing and managing the entity relationships of the database tables; and (iii) a Table Designer for designing and modifying the database tables; and (iv) a Database Schema for designing and modifying the database data structure and micros; and (v) a Data Filter for selecting a set of data from one or more database tables; and (vi) an SQL Console for writing and executing the SQL codes to the remote server database."

Moursund teaches a system and method for adding a button or other type of control to a tool bar or other region of a Windows form. A control is added by dragging an object to a region for holding controls and dropping the object at the desired location of the control in the region. Moursund's system is totally different from my claim 5 of present invention of the integrated database data editing system.

Moursund (fig. 4G, 112) teaches the control menu boxes 112 located on the top of the container window for displaying the control buttons. Moursund (col. 5, lines 39-45) teaches that "Briefly described, the 'MICROSOFT ACCESS' application program is an interactive relational database for the 'WINDOW' operating system. The object 26 may be of several different types, including tables, queries, forms, reports, micros, or modules. The 'MICROSOFT ACCESS' application program includes a button creation routine 32 for customizing the toolbar 28 in accordance with the present invention." Microsoft Access database is a simple relational database which only supports small data types, only runs on a PC and the user interface cannot be separated from the database, which is totally different from my claim 5.

As I state above, it is impossible to one ordinary skilled in the art at the time of the invention was made to modify Gill, Bowman-Amuah, Allport and Koppolu systems to include a button of the tool bar of Microsoft Access to edit or modify the database structure as used by Moursund in order to allow the user to see the entire process and user ease of use as the examiner assumes.

#7. My Claim 2 cannot be rejected under 35 U.S.C. § 103(a) by the examiner as being unpatentable over Gill et al (US. Patent No. 6,005,560) in view of Bowman-Amuah (US Patent No. 6,256,773 B1) and further in view of Allport (US. Patent No. 6,104,334) and

further in view of Koppolu et al. (US Patent No. 5,801,701). My Claim 2 is original, useful and patentable under 35 U.S.C. § 101.

Regarding my Claim 2, I teach that "The database data editing system of claim 1 contains the well-defined graphic user interfaces and tools that display a database table or a subset data of a table and have the following characters:...".

Gill et al., Bowman-Amuah, Allport and Koppolu do not teach anything related to the user interfaces and tools as my claim 2(iv) wherein "said commercial data editor is popped up from the local client computer when double-clicked the small icon of a table cell by the mouse and the database data is downloaded into the data editor from the remote server database and the edited data is then sent back to the original database when data editing is completed;". Gill et al. (col. 16, lines 48-49) use the pop-up menu and window to implement multi-media objects. The "pop-up menu" and "window" are the industrial standard components for implementing Windows form layout. Gill et al. use these standards to implement their application, which is totally different from the functions and mechanisms as disclosed in my claim 2(iv).

Gill et al. (col. 5, lines 1-33) use a plurality of commercial multi-media editors to edit the multi-media objects, which is different from my claim 2(v) wherein "said data editor is either a text editor or a multimedia editor depending on the database data type inside the table cell."

Gill et al., Bowman-Anuah, Allport and Koppolu et al. do not explicitly teach the well-defined user interfaces and tools that display a database table or a subset data of a table and have the following characters as disclosed in my claim 2(i)-(iii) wherein "(i) said database data on each table cell is defaulted as read only; and (ii) said database small text data on each table cell is directly edited when single-clicked by the mouse; and (iii) said table cell contains a small icon as a place-holder for the large text data type or large binary data type;". Koppolu et al. (fig 4, col. 8, lines 25-46) teach the spreadsheet object is embedded in a word processing application, which is totally different from my claim 2(i)-(iii). Koppolu et al. do not suggest anything similar to my claim 2 (i)-(iii) either.

As I state above, it is impossible to one ordinary skilled in the art at the time of the invention was made to modify Gill et al., Bowman-Amuah, Allport and Koppolu systems to include a user interface and a spreadsheet having cell defaulted as read only, the cell can be edited by using the cursor or clicking and the cell having dropping down menu and the buttons added by Moursund to allow the user with the editing tools to use in an easy manner as the functions and mechanisms taught in my claim 2 as assumed by the examiner.

#8. My Claim 7 cannot be rejected under 35 U.S.C. § 103(a) by the examiner as being unpatentable over Gill et al (US. Patent No. 6,005,560) in view of Bowman-Amuah (US Patent No. 6,256,773 B1) and further in view of Allport (US. Patent No. 6,104,334) and further in view of Teper et al. (US Patent No. 5,815,665). My Claim 7 is original, useful and patentable under 35 U.S.C. § 101.

Regarding my Claim 7, I teach that "A web version of the database data editing system of claim 1 is implemented by using web and Java technologies and deployed to Internet and other network systems, and further has more advantages to implement the security features by using the PKI (Public Key Infrastructure), SSL (Secure Socket Layer) and firewall." Gill et al., Bowman-Amuah and Allport do not teach an integrated database data editing system deployed and runs on Internet or any other network system or anything similar to my claim 7.

Gill et al. (col. 13, lines 58-67) teach a method to place the text objects and picture objects on a document page, which is totally different from my claim 7 where the web version of the integrated database data editing system is implemented with the Public Key Infrastructure (PKI) and Secure Socket Layer (SSL) and is deployed on Internet or also intranet.

Teper et al. teach an Online Brokering Service providing user authentication and billing services to anonymously and securely purchase online services. Users and service provider sites initially register with the Brokering Service, and are provided with respective client and server software components for using the Brokering Service. Teper et al. do not teach anything related to the integrated database data editing system as disclosed in my present invention.

Teper et al. (col. 17, lines 23-33) teach that "The client application 42 passes the challenge message to the MSN SSP package 44A via the InitializeSecurityContext API. In response to this API call, the MSN SSP package 44A generates and returns the

response message, and computes a session key which may be used for the subsequent encryption of data between the client and server applications 42, 52. (It is envisioned that the session key will be used for encryption primarily by custom applications 42, 52, and that other applications will instead use standard encryption protocols such as the Secure Sockets Layer protocol or the Private Communications Technology protocol.)". Teper et al. do not teach anything similar to my claim 7.

The Public Key Infrastructure (PKI) technology has been widely used as an industrial standard since 1970's, and the Secure Socket Layer (SSL) is also widely used as an industrial standard for many Internet applications. So far, both PKI and SSL are the best technologies and standards for Internet and other network application security through standard network communication protocols. In my invention, the PKI, SSL and firewall technologies are the first-time used to encrypt and secure the database data transmission between the client computer and the server computer through Internet or intranet.

As I state above, Gill et al., Bowman-Amuah, Allport and Teper et al. do not teach anything related to the web version of integrated database data editing system and security mechanisms as my claim 7. It is impossible for one ordinary skilled in the art at the time of the invention was made to modify the Gill et al., Bowman-Amuah and Allport systems to include both key encryption and secure socket layer as used by Teper et al. in order to protect the database data transferring from the server to client or over the unsecured Internet as assumed by the examiner.

In conclusion of arguments, my present invention of the integrated database data editing system is original and useful, and is totally different from the prior arts of Gill et al., Bowman-Amuah, Allport, Koppolu et al., Moursund, Teper et al. and any previous inventors, and my Claims 1-7 cannot be rejected under 35 U.S.C. § 103(a) by the examiner. My invention is very significant in both technology and economy aspects, and is patentable under the 35 U.S.C. § 101.

It has taken about eight years now since I filed my patent application in your office on October 2, 2000, which has consumed more than one third of my productive years in my life. My career and personal life have been greatly suffered due to the delay

of allowance of my patent application. Currently, I am survived by the Federal Social Security Disability Benefit Program for depression. I request your office to review my patent application seriously and to reverse the "Office Action Summary" and "Detailed Action" mailed to me on November 28, 2007 which rejected my Claims 1-7. I request your office to approve and allow my patent application Claims 1-7 as soon as possible. Once my patent application is allowed, I will implement it as commercial software products to make progress for our "Hi-Tech" industry and to prosper our economy.

Claims Appendix:

Attached is my Claims 1-7 which was submitted to your office on September 10, 2007 and was rejected on November 28, 2007.

Evidence Appendix:

The US patents cited in this brief.

Related Proceedings Appendix:

There is no any decision rendered by the court or the board.

Sincerely,

George Guang Yang, Ph.D.

Independent Inventor/Appellant

CLAIMS

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What I claim as my invention is:

- 1.(Currently amended) An integrated relational database data editing system providing a visual environment, graphic user interfaces and tools in a client computer to remotely access a server computer that contains a relational database and to manage and edit said database data contents through either intranet or Internet, and said system includes the following mechanisms and characters:
- (i) said client computer retrieves the database data from the remote server computer database, <u>modifies</u> modify, <u>updates</u> update, input, output the data and then sends the data back to the original database; and
- (ii) said client computer directly <u>edits</u> <u>edit</u> and <u>modifies</u> <u>modify</u> the database data without writing detail computer language codes in an efficient and easy-to-use manner; and
- (iii) said client computer directly <u>edits</u> edit and <u>modifies</u> modify the large text data type and large binary data type by using a plurality of commercial text and multimedia data editors installed on the client computer; and
- (iv) said database data editing system uses TCP/IP (Transfer Control
 Protocol/Internet Protocol) based connection-oriented network protocols to communicate
 between the client and server computers; and
- 20 (v) said database data editing system implements the user authentication and access control mechanisms which <u>assign</u> <u>assigns</u> different user groups with different privileges.
 - 2.(Currently amended) The database data editing system of claim 1 contains the well-defined graphic user interfaces and tools that <u>display</u> displays a database table or a subset data of a table and <u>have</u> has the following characters:
 - (i) said database data on each table cell is defaulted as read only; and
 - (ii) said database small text data on each table cell is directly edited when single-clicked by the mouse; and
- (iii) said table cell contains a small icon as a place-holder for the large text data
 30 type or large binary data type; and

- (iv) said commercial data editor is popped up from the local client computer when double-clicked the small icon of a table cell by the mouse and the database data is downloaded into the data editor from the remote server database and the edited data is then sent back to the original database when data editing is completed; and
- (v) said data editor is either a text editor or a multimedia editor depending on the database data type inside the table cell.

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- 3.(Previously presented) The database data editing system of claim 1 contains a Database Data Manager in the client computer comprising a Header Panel and a Detail Panel, which provides a user-friendly visual environment and tools to manage and edit the database data contents.
- 4.(Previously presented) The Header Panel of the Database Data Manager of Claim 3 contains a list of databases and database tables for each database, and
 - (i) a Detail Panel is popped up when double-clicked the database name; and
 - (ii) a database table is popped up when double-clicked the table name.
 - 5.(Previously presented) The Detail Panel of Claims 3 & 4 further contains:
 - (i) a Database Designer for creating and modifying the database; and
- (ii) an Entity Relationship Designer for editing and managing the entity relationships of the database tables; and
 - (iii) a Table Designer for designing and modifying the database tables; and
- (iv) a Database Schema for designing and modifying the database data structure and micros; and
 - (v) a Data Filter for selecting a set of data from one or more database tables; and
- (vi) an SQL Console for writing and executing the SQL codes to the remote server database.
- 25 6.(Currently amended) A The client/server version of the integrated database data editing system of claim 1 is implemented by using Java technologies and deployed to the intranet.
 - 7.(Currently amended) A The web version of the database data editing system of claim 1 is implemented by using web and Java technologies and deployed to Internet and other network systems, and further has more advantages to implement the security features by using the PKI (Public Key Infrastructure), SSL (Secure Socket Layer) and firewall.

Application/Control No. <u>09/677,493</u> File date: 10/02/2000

Art Unit: 2172

Applicant: George Guang Yang
(Previous used name: Guang Yang)



Notice of Reference

Document Number	Date	Inventor Name	Classification	
5,644,739	07/1997	Moursund	395/354	
5,801,701	09/1998	Koppolu et al.	345/352	
5,815,665	09/1998	Teper et al.	395/200.59	
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6,104,334	08/2000	Allport, David E.	341/175	
6,256,773	07/2001	Bowman-Amuah	717/121	



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